Serial Number: 10/046,590

Filing Date: October 29, 2001

Title: METHOD AND APPARATUS FOR DECODING LATTICE CODES AND MULTILEVEL COSET CODES

Assignee: Intel Corporation

## REMARKS

This paper responds to the Office Action mailed on June 27, 2005.

Claims 1, 5, 12, 14, 18-21, 27, and 31 are amended. Claims 1-32 remain pending in this application.

## §103 Rejection of the Claims

Claims 1-11, 14-18, and 20-30 were rejected under 35 USC § 103(a) as being unpatentable over Forney, Jr. (U.S. 4,933,956) in view of Sklar, "Digital Communications Fundamentals and Applications", published by Prentice Hall PTR, 2000.

Applicant respectfully traverses.

Independent claim 1 recites, among other things, "wherein said encoded input signal is coded with a code having at least one constituent code, and wherein performing iterative decoding includes exchanging information between a plurality of constituent decoders during at least two iterative cycles when said encoded input signal includes multiple constituent codes". Applicant is unable to find in Forney, Jr. and Sklar, either individual or in combination, "wherein said encoded input signal is coded with a code having at least one constituent code, and wherein performing iterative decoding includes exchanging information between a plurality of constituent decoders during at least two iterative cycles when said encoded input signal includes multiple constituent codes". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 1.

Dependent claims 2-11 depend from claim 1 and recite the things of claim 1. Thus, Applicant believes that claims 2-11 are patentable over Forney, Jr. and Sklar, either individual or in combination, for at least the reasons presented above regarding claim 1 and for the additional things recited in claims 2-11. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 2-11.

Independent claim 14 recites, among other things, "wherein said iterative decoding unit includes a plurality of constituent decoders, and wherein said constituent decoders are configured to exchanging information among said constituent decoders during said iterative decoding".

Applicant is unable to find in Forney, Jr. and Sklar, either individual or in combination, "wherein

Filing Date: October 29, 2001

Title: METHOD AND APPARATUS FOR DECODING LATTICE CODES AND MULTILEVEL COSET CODES

Assignee: Intel Corporation

said iterative decoding unit includes a plurality of constituent decoders, and wherein said constituent decoders are configured to exchanging information among said constituent decoders during said iterative decoding". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 14.

Page 12

Dkt: 884.430US1 (INTEL)

Dependent claims 15-18, and 20-26 depend from claim 1 and recite the things of claim 1. Thus, Applicant believes that claims 15-18, and 20-26 are patentable over Forney, Jr. and Sklar, either individual or in combination, for at least the reasons presented above regarding claim 1 and for the additional things recited in claims 15-18, and 20-26. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 15-18, and 20-26.

Independent claim 27 recites, among other things, "wherein said encoded input signal is coded with a code having at least one constituent code, and wherein performing iterative decoding includes exchanging information between a plurality of constituent decoders during at least two iterative cycles when said encoded input signal includes multiple constituent codes". Applicant is unable to find in Forney, Jr. and Sklar, either individual or in combination, "wherein said encoded input signal is coded with a code having at least one constituent code, and wherein performing iterative decoding includes exchanging information between a plurality of constituent decoders during at least two iterative cycles when said encoded input signal includes multiple constituent codes". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 27.

Dependent claims 28-30 depend from claim 27 and recite the things of claim 27. Thus, Applicant believes that claims 28-30 are patentable over Forney, Jr. and Sklar, either individual or in combination, for at least the reasons presented above regarding claim 27 and for the additional things recited in claims 2-11. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 2-11.

## Allowable Subject Matter

Claims 12, 13, 31, and 32 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/046,590

Filing Date: October 29, 2001

Title: METHOD AND APPARATUS FOR DECODING LATTICE CODES AND MULTILEVEL COSET CODES

Assignee: Intel Corporation

Claims 13 depends from claim 12. Claim 32 depends from claim 31. Claims 12 and 31 are rewritten in independent form. The rewriting does not alter the scope of claims 12 and 31. Thus, claims 12, 13, 31, and 32 are now in condition for allowance.

Page 13

Dkt: 884.430US1 (INTEL)

Claim 19 is not rejected. Claim 19 is rewritten in independent form. The rewriting does not alter the scope of claim 19. Thus, claim 19 is now in condition for allowance.

Serial Number: 10/046,590

Filing Date: October 29, 2001

Title: METHOD AND APPARATUS FOR DECODING LATTICE CODES AND MULTILEVEL COSET CODES

Assignee: Intel Corporation

## Conclusion

Page 14

Dkt: 884.430US1 (INTEL)

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6969) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

ILAN SUTSKOVER ET AL.

By their Representatives,

Attorneys for Intel Corporation

P.O. Box 2938

Minneapolis, Minnesota 55402

(612) 349-9592

Date October 27, 2005

Βv

Viet V. Tong

Reg. No. 45,416

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of October, 2005.

Name

Signature